

ABSTRACT

A method and apparatus for increasing the spectral efficiency of communications systems by employing portions of the spectrum, which portions might otherwise be reserved as all or part of guard bands and not utilized (i.e., effectively wasted), for communicating at reduced power levels between devices that are determined to experience relatively high performance (e.g., relatively little path loss, etc.). In a communication system having a first predefined maximum system transmission power level for in-band transmissions, a method is provided for determining that communication performance between a first communication device and a second communication device exceeds a performance threshold. Based on the determination, a first band-edge channel for communication between the first communication device and the second communication device (i.e., transmission from the first device to the second device and/or visa versa) is assigned. Finally, the first communication device and/or the second communication device utilize one or more band-edge channels (each may use a different band-edge channel) for transmitting a relatively reduced power level.